

WE CLAIM:

1. A network device for managing a software change over a network, comprising:
 - a transceiver arranged to send and to receive a packet over the network;
 - a processor, coupled to the transceiver, that is configured to perform actions, including:
 - determining an update policy associated with the network device;
 - determining an availability of the software change based in part on the update policy;
 - selecting the software change based in part on the update policy;
 - receiving the software change through a distribution service according to the update policy; and
 - installing the software change on the network device according to the update policy.
2. The network device of Claim 1, wherein the network device is at least one of a network appliance, server appliance, internet appliance, intranet appliance, web server, cache server, file server, router, gateway, switch, bridge, firewall, and a proxy.
3. The network device of Claim 1, wherein the update policy further comprises at least one of a selection criterion, a delivery criterion, and an installation criterion.
4. The network device of Claim 1, wherein the distribution service is further configured to enable access to the software change from at least one of a repository, a third-party service, a test server, and a development server.
5. The network device of Claim 1, wherein the distribution service further comprises at least one of a reverse proxy server, and a peer-to-peer device.

6. The network device of Claim 1, wherein selecting the software change further comprises determining the selection based in part on at least one of a hardware configuration of the network device, a priority associated with the software change, a software configuration of the network device, a type associated with the software change, a control list, an impact associated with the software change, and a schedule.

7. The network device of Claim 1, wherein the software change is independent of a software version number.

8. The network device of Claim 1, wherein installing the software change further comprises:

validating the integrity of the software change in part through a cryptographic mechanism.

9. The network device of Claim 1, the software change further comprises a third-party change, wherein the third-party change is included in the software change at least in part by a third-party.

10. The network device of Claim 1, wherein installing the software change further comprises generating a log that enables rollback of the installed software change.

11. The network device of Claim 1, wherein the software change further comprises a change package that includes at least one of a binary file, a configuration file, a change descriptor, a package descriptor, test procedure, and a deployment descriptor.

12. The network device of Claim 1, wherein the software change is digitally signed by at least one of a developer, releaser, tester, third-party, and a manager associated with the software change.

13. The network device of Claim 1, wherein determining the availability of the software change further comprises subscribing to the distribution service.

14. A method for managing a software change to a network device over a network, comprising:

- determining an update policy associated with software for the network device;

- determining, over the network, an availability of the software change based in part on the update policy;

- selecting the software change based in part on the update policy;

- receiving the selected software change over a distribution service according to the update policy; and

- installing the received software change on the network device according to the update policy.

15. The method of Claim 14, wherein determining the update policy further comprises determining at least one of a selection criterion, a delivery criterion, and an installation criterion for the software change.

16. The method of Claim 14, wherein determining an availability of the software change further comprises:

- subscribing to the distribution service; and

- monitoring the distribution service for the software change.

17. The method of Claim 14, wherein selecting the software change further comprises determining the selection based in part on at least one of a hardware configuration of the network device, a priority associated with the software change, a software configuration of the network device, a type associated with the software change, a control list, an impact associated with the software change, and a schedule.

18. The method of Claim 14, wherein the software change further comprises a change package that includes at least one of a binary file, a configuration file, a change descriptor, a package descriptor, test procedure, and a deployment descriptor.

19. The method of Claim 14, wherein installing the received software change further comprises determining at least one of a priority, an impact, an integrity, and a time associated with the installation of the software change.

20. The method of Claim 14, wherein the distribution service further comprises at least one of a reverse proxy server and a peer-to-peer distribution service.

21. A system for communicating a change package over a network, comprising:

- a repository configured to store the change package;
- a distribution service, coupled to the repository, that is configured to distribute the change package over the network; and
- a client, coupled to the distribution service, that is configured to perform actions, including:
 - determining an update policy associated with the client;
 - determining an availability of the change package based in part on the update policy;
 - selecting the change package based in part on the update policy;
 - receiving the selected change package through the distribution service according to the update policy; and
 - installing the received change package on the client according to the update policy.

22. The system of Claim 21, wherein the distribution service further comprises at least one of a reverse proxy server, and a peer-to-peer network.

23. The system of Claim 21, wherein the repository further comprises at least one of trust information, subscription information, and an observer mechanism.

24. The system of Claim 21, further comprising a license manager coupled to the distribution service, and enabled to provide at least one of a public key certificate, a software license, a control list, and a revocation list.

25. The system of Claim 21, wherein the change package further comprises at least one of a software change, a change descriptor, a package descriptor, and a deployment descriptor.

26. The system of Claim 21, wherein the client further comprises at least one of a network appliance, a server appliance, internet appliance, intranet appliance, cache server, web server, file server, router, gateway, bridge, firewall, and a proxy.

27. The system of Claim 21, wherein the distribution service further comprises at least one of a reverse proxy server, and a peer-to-peer device.

28. An apparatus for managing a software change over a network, comprising:

a transceiver arranged to send and to receive a packet over the network;

a processor, coupled to the transceiver, that is configured to perform actions, including:

a means for determining an update policy associated with the apparatus;

a means for employing the update policy to perform further actions, including:

a means for determining an availability of the software change;

a means for selecting the software change;

a means for receiving the software change through a
distribution service; and
a means for installing the software change on the
apparatus.